



**Montana Department of  
ENVIRONMENTAL QUALITY**

**Steve Bullock, Governor  
Tracy Stone-Manning, Director**

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*Via E-mail and U.S. Mail*

Tom Henson  
C/O Scott Davies  
ARCADIS  
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**Re: Natural Attenuation Monitoring Fall 2013 Report Submittal, Silvertip Pipeline Incident**

Dear Mr. Henson:

The Montana Department of Environmental Quality (DEQ) has reviewed the above-referenced Natural Attenuation Monitoring Report dated November 2013 (NAM Report). The NAM report was prepared by ARCADIS on behalf of ExxonMobil Pipeline Company (EM). The NAM Report compiles the documentation of the fall 2013 NAM event.

The NAM effort began in 2011 with 45 locations, and since NAM commenced, 22 NAM locations have dropped from the monitoring schedule either because there was no oil observed at a location or because the location was substantially altered (i.e. the river bank eroded and the original focus of the location is gone). Of the remaining 23 NAM locations observed in fall 2013, EM's NAM Report states that "no oil was observed" at 10 locations (A07-RB-1, A14-LB-1, A19-RB-1, A-22-IS-1, A-26-IS-1, A-29-IS-1, B-14-LB-1, B-27-RB-1, B-46-RB-1, and C-05-RB-1). At the remaining 13 locations where signs of crude oil remain, ARCADIS's field logs indicate "natural attenuation is apparent." DEQ has compared the fall 2013 photographs of these locations with photographs from previous NAM events, and verified that these statements are correct. While some crude oil stains remain at thirteen of the original 45 locations, DEQ notes that staining appears to be lighter in fall 2013 than in previous events. All remaining crude oil stains, monitored as part of the NAM effort, are either on highly textured tree bark (as a "bathtub ring" around live cottonwood trees), or are on light-colored wood or branches against which the crude oil is highly visible. These stains are likely to persist for an unknown length of time. While the stains might be considered aesthetically unpleasing, DEQ has determined that they are dry and weathered and do not appear to pose a threat to human health or the environment.

EM has requested DEQ approval to cease the NAM effort, as provided in Attachment A, paragraph 7 of the Administrative Order on Consent, Docket No. 12-08, (AOC). DEQ agrees that the NAM effort may be ended after an additional monitoring event of the remaining 13 locations where crude oil is visible in summer 2014 for the following reasons:

- NAM was commenced in fall 2011 in 45 locations along the Yellowstone River, representing a wide variety of remaining oiling conditions. Of those original 45 locations, 32 (or 71 %) showed no signs of oiling or staining by fall 2013. Natural weathering processes appear to have been successful in degrading crude oil in many locations along the river.
- Remaining crude oil staining is apparent as “bathtub rings” around tree trunks (where the oil soaked into bark), on fallen cottonwood with light colored wood (where the oil soaked into the dead wood), and on some shrub branches where the oil stained the wood and bark. NAM photographs show that stains on some trees and bark are no longer visible, indicating that natural attenuation has been successful in some circumstances. The stains that still remained in fall 2013 will likely require more time and weathering before they are no longer visible. However, DEQ notes that these stains are dry (not sticky or transferable) and do not pose a risk to human health or the environment.
- DEQ has compared chronological photographs of the 13 NAM locations with persistent stains, and in all cases the photographs in fall 2013 showed lighter or less staining than previously. Even at the locations where staining persists, photographic evidence suggests that natural degradation processes are weathering the stains over time.
- DEQ believes that the significant effort, resources, and risk (i.e. boat travel on the river) in continuing to monitor the remaining 13 NAM locations are not justified by the environmental benefit of the effort.
- Please note that, as provided in Section XXIX of the AOC, if DEQ becomes aware of conditions that were previously unknown to DEQ or new information is received by DEQ that indicates that the work was not adequate to protect the public health, welfare or safety, or the environment, DEQ may require additional monitoring of these locations. In such case, ExxonMobil shall perform the Additional Work pursuant to Section XXVIII of the AOC.

Please note that DEQ has approved completion of NAM after a summer 2014 monitoring event, and DEQ understands that many wooden location stakes remain in the river bottom. These stakes must be recovered from the river bottom (*See* Section 75-10-212, MCA). Please conduct one additional NAM event (i.e., collect photographs of the remaining 13 NAM locations) during the process of removing any NAM location stakes. In addition, please document the retrieval of any NAM location markers or other sample location markers that are no longer needed in a brief memo to DEQ. Please note that DEQ and other agencies will be conducting similar efforts to retrieve sample location markers when those markers are no longer needed.

The summer 2014 monitoring event and collection of all remaining NAM stakes must be completed by August 31, 2014, and the memo must be submitted by September 30, 2014. Please provide me with at least two weeks advance notice regarding the planned start of future monitoring activities, so DEQ may provide oversight during all or part of the NAM activities.

Sincerely,



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cc: Katherine Haque-Hausrath, DEQ Legal